

REMARKS

The present application includes pending claims 1-65. By this Amendment, claims 1, 2, 18, 24, 25, 30-32, 40, 52 and 63 have been amended. The Applicants respectfully submit that the claims define patentable subject matter.

The Office Action indicated that formal versions of Figures 1-15 are required. The Applicants have enclosed formal replacement drawings for Figures 1-15.

Claims 1-17, 19-39, 41-44, 46-50, 52-62, 64 and 65 stand rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,470,927 (“Shmulewitz”) in view of United States Patent No. 5,706,327 (“Adamkowski”). Claims 18, 40 and 63 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shmulewitz in view of Adamkowski and United States Patent No. 5,552,111 (“Moore”). Claim 45 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Shmulewitz in view of Adamkowski and United States Patent No. 5,984,870 (“Giger”). Claim 51 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shmulewitz in view of Adamkowski and United States Patent Application Publication 2003/0007598 (“Wang”). The Applicants respectfully traverse these rejections for at least the following reasons:

I. The Proposed Combination Of Shmulewitz And Adamkowski Does Not Render Claims 1-17, 19-39, 41-44, 46-50, 52-62, 64 And 65 Unpatentable

The Applicants first turn to the rejection of claims 1-17, 19-39, 41-44, 46-50, 52-62, 64 and 65 as being unpatentable over Shmulewitz in view of Adamkowski. Shmulewitz “relates to methods and apparatus for imaging breast tissue employing both X-ray and ultrasound technology to provide enhances diagnostic capability, and enhanced X-ray imaging.” *See*

Shmulewitz at column 1, lines 9-12. In particular, Shmulewitz “provides methods and apparatus for augmenting conventional mammography equipment with an ultrasonic imaging system that provides geometrically registered X-ray and ultrasonic fields....” *Id.* at column 1, lines 12-16.

Shmulewitz discloses a system in which a breast is compressed between two compressive members that are parallel with one another, and typically parallel with the plane of the floor. Shmulewitz does not describe, teach, or suggest, however “first and second compression plates that are angled with respect to one another,” or “at least one pivot assembly allowing relative motion between said first and second compression plates,” as recited in claim 1. Indeed, the Office Action acknowledges these deficiencies in Shmulewitz. *See* March 22, 2007 Office Action at page 3 (“Shmulewitz (‘927) fails to teach that the two compression plates are angled with respect to each other, and consequently fails to teach any features for the assembly related to the mechanism or adjustment of such an angled arrangement.”).

To overcome these deficiencies, the Office Action cites Adamkowski. Adamkowski “generally relates to medical X-ray imaging an particularly to mammography.” Adamkowski at column 1, lines 5-7. In particular, Adamkowski “relates to a method and apparatus for mammographic compression which enables compressive forces to be distributed more uniformly along the breast while still providing sufficient compression at the chest wall.” *Id.* at column 1, lines 7-12.

The mammography device 10 of Adamkowski includes a receiver/breast supporting surface that is secured to a C-arm 14. For example, Adamkowski discloses the following:

FIG. 1 illustrates a conventional mammography device 10 upon which the present invention may be used. The mammography device 10 comprises a base 12, an imaging C-arm 14 which is

connected to the vertical travel assembly 12 via a pivot member 16, a X-ray tube 18 located at one end of the imaging C-arm 14 and an image receiver 20, which also provides a breast supporting surface, at the opposite end.

Id. at column 2, lines 44-50. Notably, the breast supporting surface 20 is not configured to pivot with respect to the C-arm 14, nor is it connected to a pivot assembly. *See id.*, *e.g.*, at Figures 1 and 2.

Adamkowski also discloses a second compression surface that is configured to pivot.

The apparatus further includes a compression surface 32, which is shown as substantially planar, having a chest wall end 33a and nipple end 33b. The compression surface 32 is attached to the frame 30 at pivots 34a and 34b located between chest wall end 33a and nipple end 33b.

Id. at column 2, lines 57-62. While the compression surface 32 is connected to pivots 34a and 34b, the breast supporting surface 20 is not connected to those pivots, or any other pivots.

The proposed combination of Shmulewitz and Adamkowski does not describe, teach, or suggest “at least one pivot assembly being operatively connected to each of said first and second compression plates,” as recited in claims 1 and 52, as amended, or “at least one pivot assembly being operatively connected to each of said upper and lower compression plates,” as recited in claim 24, as amended. Thus, for at least these reasons, the proposed combination does not render claims 1, 24, 52 or any of the claims that depend therefrom unpatentable.

With respect to claims 5, 28 and 53, the proposed combination also does not describe, teach, or suggest “wherein said at least one pivot assembly comprises a spring member that connects [one] compression plate to [another] compression plate.” While Shmulewitz discloses spring members 40 between the compression surface 32 and the frame 30 that supports the

compression surface 32, these springs are not used to connect the compression surface 32 to the breast supporting surface 20. Thus, for at least this additional reason, the proposed combination does not render claims 5, 28 and 53 unpatentable.

With respect to claims 6, 29 and 54, the proposed combination of Shmulewitz and Adamkowski does not describe, teach, or suggest a first compression plate being operatively connected to a first pivot assembly, and a second compression plate being operatively connected to a second pivot assembly. Thus, the proposed combination does not render claims 6, 29 and 54 for at least these reasons. The proposed combination does not render claims 9, 32 and 57 unpatentable for similar reasons.

II. The Proposed Combination Of Shmulewitz, Adamkowski And Moore Does Not Render Claims 18, 40 and 63 Unpatentable

The Applicants next turn to the rejection of claim 18, 40 and 63 as being unpatentable over Shmulewitz, Adamkowski and Moore. Moore discloses a system in which “the compression plate 14 and/or the support plate 16 are capable of one or both of lateral translation (A+B) between the inner surface 15 of the compression plate 14 and the inner surface 17 of the support plate 16.” Moore at column 8, lines 3-8. While Moore discloses that the compression plates 14 and 16 may be laterally translated or twisted with respect to one another, the proposed combination of Shmulewitz, Adamkowski and Moore does not describe, teach or suggest a “swivel member that connects said at least one pivot assembly **and** first and second compression plates to said upright member,” as recited, for example, in claim 18. Thus, for at least this reason, the proposed combination does not render claims 18, 40 and 63 unpatentable.

III. The Proposed Combination Of Shmulewitz, Adamkowski And Giger Does Not Render Claim 45 Unpatentable

The Applicants next turn to the rejection of claim 45 as being unpatentable over Shmulewitz, Adamkowski and Giger. The Applicants note that the Office Action rejected claim 49 under this combination of references, but the Applicants assume the Office Action meant claim 45. *See* claims 45, 49 and March 22, 2007 Office Action at pages 4-5. Nevertheless, the Applicants respectfully submit that the proposed combination of references does not render claims 45 and 49 unpatentable for at least the reasons discussed above.

IV. The Proposed Combination Of Shmulewitz, Adamkowski And Wang Does Not Render Claim 51 Unpatentable

The Applicants respectfully submit that the proposed combination of Shmulewitz, Adamkowski and Wang does not render claim 51 unpatentable for at least the reasons discussed above.

V. Conclusion

In general, the Office Action makes various statements regarding claims 1-65 and the cited references that are now moot in light of the above. Thus, the Applicants will not address such statements at the present time. However, the Applicants expressly reserve the right to challenge such statements in the future should the need arise (e.g., if such statement should become relevant by appearing in a rejection of any current or future claim).

The Applicants respectfully submit that the pending claims are in condition for allowance for least the reasons discussed above and request that the outstanding rejections be reconsidered and withdrawn. If the Examiner has any questions or the Applicants can be of any assistance, the Examiner is invited to contact the Applicants.

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The Commissioner is authorized to charge any necessary fees, or credit any overpayment to Deposit Account 50-2401.

Respectfully submitted,

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